

**Amendments to the ABSTRACT OF THE INVENTION:**

This ABSTRACT OF THE INVENTION will replace all prior versions of the ABSTRACT OF THE INVENTION in the application:

**ABSTRACT OF THE INVENTION**

~~A method and a system constructs an investment portfolio characterized by a utility function which includes two segments. The first segment is a log-utility function indicative of the portfolio holder's utility for positive rates of return and reflects the portfolio holder's desire for portfolio growth. The second segment is a power-utility function with a negative power indicative of the degree to which the portfolio holder is averse to losses, i.e., negative rates of return. The two-segment utility function is continuously differentiable over the entire range of portfolio returns. A mathematical programming algorithm selects investment weights of the assets in the portfolio to maximize the portfolio's expected utility which is based on a two-segment utility function. The asset weights, in turn, are selected so as to account for the probability of the future occurrences of different economic events. A computer software includes modules for carrying out the optimization to select asset weights and to thereby construct the portfolio. The computer software is in the form of codes executed by a processor.~~

A method and a system for the optimal allocation of investment funds to construct an investment portfolio by using a two-segment, risk-averse utility function, where the first segment is a log-utility function indicative of the portfolio holder's utility for positive rates of return and reflects the portfolio holder's desire for maximizing portfolio growth, and the second segment is a power-utility function with a zero or negative power indicative of the degree to which the portfolio holder is averse to losses. An optimization algorithm determines the optimal investment weights for the assets in the investment portfolio to maximize the portfolio's expected utility, which is based on the two-segment utility function. A computer software includes modules for carrying out the optimization to determine the optimal investment weights for the assets and to thereby construct the investment portfolio. The computer software is in the form of codes executed by a processor.